

Milk Stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **35**
- SRM **37.7**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **101.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **57 liter(s)**
- Total mash volume **76 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **57 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **63.2 liter(s)** of **76C** water or to achieve **101.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|--------|------|
| Grain | Strzegom Pilzneński | 7.5 kg (35.7%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 7.5 kg (35.7%) | 79 % | 16 |
| Grain | Strzegom Czekoladowy jasny | 0.8 kg (3.8%) | 68 % | 400 |
| Grain | Strzegom Karmel 600 | 1 kg (4.8%) | 68 % | 601 |
| Grain | Chocolate Malt (UK) | 1 kg (4.8%) | 73 % | 1200 |
| Grain | Carafa | 1.2 kg (5.7%) | 70 % | 800 |
| Sugar | Milk Sugar (Lactose) | 2 kg (9.5%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Progress | 100 g | 60 min | 7.6 % |
| Boil | Magnum | 50 g | 45 min | 12.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--|-------------|-------------|---------------|-------------------|
| Mangrove Jack's M42 New World Strong Ale | Ale | Dry | 33 g | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------|---------------|----------------|-------------|
| Other | laktoza | 2000 g | Boil | 10 min |